

Huntsman Advanced Materials Americas Inc.

HUNTSMAN

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Effective Date: 10/17/05 ✓

Material Safety Data Sheet

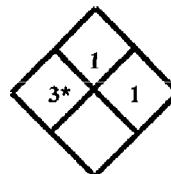
MSDS No: 2432

1. PRODUCT IDENTIFICATION

Trade Name: EPOCAST 5A-21

Material Code: FPC2355

Chemical Family: Epoxy Resin



NFPA RATING

2. COMPOSITION / INFORMATION ON INGREDIENTS

O S H A	CAS No.	CHEMICAL IDENTITY	EXPOSURE LIMITS					CARCINOGEN STATUS		
			ACGIH		OSHA		MFR.	IARC	NTP	OSHA
			TWA	STEL	PEL	STEL				
	Confidential	alkali carbonate	10 mg/m3	NE	5 mg/m3	NE	NE	NR	NR	NR
	Concentration	10.00 - 30.00 % by wt								
	Confidential	white pigment	10 mg/m3	NE	15 mg/m3	NE	NE	NR	NR	NR
	Concentration	0.00 - 10.00 % by wt								
	14808-60-7	Quartz (SiO2)	0.05 mg/m3	NE	NE	NE	NE	Yes	Yes	Yes
	Common Name:	Crystalline Silica (Quartz)								
	Concentration	0.10 - 1.00 % by wt								
	Confidential	Bisphenol A Diglycidyl Ether Resin	NE	NE	NE	NE	NE	NR	NR	NR
	Concentration	60.00 - 90.00 % by wt								
	96-48-0	2(3H)-Furanone, dihydro-gamma-butyrolactone	NE	NE	NE	NE	NE	NR	NR	NR
	Common Name:									
	Concentration	0.00 - 10.00 % by wt								

NE = Not Established NR = Not Reviewed

3. HAZARDS IDENTIFICATION

Emergency Overview: WARNING! ! Causes severe eye irritation and possible eye damage. Causes severe skin irritation and possible allergic skin reaction. Harmful if inhaled. Harmful if swallowed.

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Americas, Inc. (LA)**Primary Route(s) of Entry:** Dermal, inhalation.**Potential Health Effects:** Vapor or mist may possibly be harmful if inhaled. Substance may cause moderate irritation to eyes. Substance may cause slight irritation to skin. Substance may possibly be harmful if ingested.**Carcinogenicity (NTP, IARC, OSHA):** This product contains Silica considered to be carcinogenic by NTP, IARC, or OSHA (fused and/or amorphous)**Chronic:** Prolonged and repeated exposure can cause allergic reaction. Also, overexposure to substance may cause delayed and serious injury.**4. FIRST AID MEASURES****Ingestion:** If swallowed dilute by giving two (2) glasses water to drink. See a physician. Never give anything by mouth to an unconscious person.**Skin:** For skin contact, wash affected areas with plenty of water, and soap, if available, for several minutes. Remove and clean contaminated clothing and shoes before re-use. Get medical attention if irritation occurs.**Inhalation:** If inhaled, remove from area to fresh air. If not breathing, give artificial respiration. Get immediate medical attention. If breathing is difficult, transport to medical care and, if available, give supplemental oxygen.**Eyes:** For eye contact, immediately flush eyes for at least 15 minutes with running water. Hold eyelids apart to ensure rinsing of the entire eye surface and lids with water. Get immediate medical attention.**Note to Physician:** Allergic dermatitis or respiratory response in susceptible individuals may be delayed. It may appear after weeks or even months of frequent and prolonged contact.**Medical Conditions Aggravated by Exposure:** Allergy, eczema, and eye conditions.**5. FIRE FIGHTING MEASURES****Flash Point:** 254°C (489 °F)
Flash Point Method Used: PMCC**Fire Fighting Extinguishing Media:** Carbon dioxide, foam, dry chemical, water spray.**Fire Fighting Equipment:** Use self-contained breathing apparatus and full protective clothing.**Fire and Explosion Hazards:** Keep fire-exposed containers cool with water.**Hazardous Combustion Products:** Decomposition and combustion products may be toxic.**6. ACCIDENTAL RELEASE MEASURES****Accidental Release Measures:** Dike and absorb spill on inert material (sand, earth, etc.). Transfer to containers for disposal. Remove contaminated clothing and wash affected skin areas with soap and water. Wash clothing before reuse.**7. HANDLING AND STORAGE**

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Americas, Inc. (LA)**Signal Word:** Caution!**Precautions:** Avoid contact with eyes, skin, or clothing. Wear eye protection and impervious gloves when handling. Wash thoroughly after handling. Avoid breathing vapor or mist. Keep containers closed when not in use. Use only with adequate ventilation. Do not take internally.**Other Handling Information:** Crystalline silica may be generated when machining cured products. Overexposure may create possible cancer and silicosis hazard.**Storage Information:** MAXIMUM 35° C - Store indoors in a cool, dry area with adequate ventilation.**Additional Information:** PLEASE READ TECHNICAL DATA SHEET BEFORE HANDLING THE PRODUCT. KEEP OUT OF THE REACH OF CHILDREN. FOR INDUSTRIAL USE ONLY.**8. EXPOSURE CONTROLS / PERSONAL PROTECTION****Personal Protective Equipment:** Eye bath and safety shower should be available. Wear protective clothing.**Exposure Guidelines:** Wash thoroughly after handling and before eating, drinking, or using tobacco products.**Skin Protection:** Wear impervious gloves.**Respiratory Protection:** Wear respirator (MSHA/NIOSH or approved equivalent) suitable for concentrations and type of air contaminants encountered.**Eye Protection:** Wear splash-proof chemical goggles.**Engineering Controls:** Good general mechanical ventilation and local exhaust if needed.**Emergency Response Protection:** Wear breathing apparatus (MSHA/NIOSH-approved, pressure demand, self-contained or equivalent) and full protective gear.**9. PHYSICAL AND CHEMICAL PROPERTIES**

Color:	Yellow
Odor:	No Discernable Odor
Physical State:	Liquid
Solubility in Water:	Negligible
Viscosity:	13000 cps
Vapor Pressure:	< 1 mm Hg at 20°C (68 °F)
Specific Gravity:	1.35 (water = 1)
Evaporation Rate:	< 1 (Butyl Acetate = 1)
Vapor Density:	> 1 (water = 1)
VOC:	< 1 % (By Weight)

10. STABILITY AND REACTIVITY**Conditions to Avoid:** Elevated temperatures, amines and bases in bulk**Stability:** Stable under normal conditions.

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Americas, Inc. (LA)**Incompatibility:** Strong oxidizing agents**Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide**Hazardous Polymerization:** Will not occur.**11. TOXICOLOGICAL INFORMATION****Acute Oral Effects (LD50):** For Bisphenol A Diglycidyl Ether Resin: >5,000 mg/Kg (rats)**Acute Dermal Toxicity (LD50):** For Bisphenol A Diglycidyl Ether Resin: >6,000 mg/Kg (rabbits)**Inhalation Toxicity (LC50):** Not available**Sensitization:** Skin sensitizer.**Carcinogenicity:** Crystalline silica dust in its neat form is on the IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans (Volume 42, 1987) concludes that there is sufficient evidence for the carcinogenicity of crystalline silica to experimental animals, and there is limited evidence of the carcinogenicity of crystalline silica to Humans. IARC Class 2A**Skin Irritation:** Moderate irritant.**Eye Irritation:** Severe eye irritant.**12. ECOLOGICAL INFORMATION****Biodegradability:** No information available.**Ecotoxicity:** No information available.**13. DISPOSAL CONSIDERATIONS****Waste Disposal Method:** Incinerate in approved site or facility in accordance with local, state and federal regulations. Avoid personal contact during transfer and handling.**14. TRANSPORT INFORMATION****DOT: Non-Bulk****Proper Shipping Name:**

Not Regulated

IATA: Non-Bulk**Proper Shipping Name:**

Not Regulated

IMDG:**Proper Shipping Name:**

Not Regulated

15. REGULATORY INFORMATION

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Americas, Inc. (LA)**US Federal Regulations:**

Occupational Safety and Health Act (OSHA): This Material Safety Data Sheet (MSDS) has been prepared in compliance with the federal OSHA Hazard Communication Standard 29 CFR 1910.1200. This product is considered to be a hazardous chemical under that standard.

Resource Conservation and Recovery Act (RCRA): Not a hazardous waste under RCRA (40 CFR 261).

SARA Title III: Section 304 - CERCLA: Not listed.

SARA Title III: Section 311/312 - Hazard Communication Standard (HCS): Immediate (acute) health hazard.
Delayed (chronic) health hazard.

SARA Title III: Section 313 Toxic Chemical List (TCL): This product does not contain a toxic chemical for routine annual 'Toxic Chemical Release Reporting' under Sec. 313 (40 CFR 372).

TSCA Section 8(b) - Inventory Status: Chemical components listed on TSCA Inventory.

TSCA Section 12(b) - Export Notification: This product contains the following chemical(s) that are subject to a Section 12(b) export notification:

Chemical Name: Oxirane, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-

Common Name: Diglycidyl Ether of Bisphenol A

CAS Number: 1675-54-3

International Regulations:

Australian Inventory Status: This product contains only chemicals which are currently listed on the Australian Inventory of Chemical Substances.

Canadian Inventory Status: This product contains one or more chemicals currently not on the Canadian Domestic Substance List.

European Inventory Status (EINECS): This product contains only chemicals that are currently listed on the European Inventory of Existing Commercial Chemical Substances (EINECS).

Japanese Inventory Status: This product contains one or more chemicals currently not on the Japanese Ministry of International Trade and Industry List of Existing and New Chemical Substances.

State Regulations:

California Proposition 65: The following is required composition information. This product contains the following chemical(s) which are currently listed on the California list of Known Carcinogens and Reproductive Toxins:

Chemical Name: Quartz (SiO₂)

Common Name: Crystalline Silica (Quartz)

CAS Number: 14808-60-7

Percent in Composition: 0.1 - 1 % by wt

Comment: Warning! This chemical is known to the State of California to cause cancer.

Pennsylvania Right-to-Know: The following is required composition information:

Chemical Name: Bisphenol A Diglycidyl Ether Resin

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CAS Number: Confidential

Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: alkali carbonate

CAS Number: Confidential

Comment: Hazardous Substance

Chemical Name: 2(3H)-Furanone, dihydro-

CAS Number: 96-48-0

Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: white pigment

CAS Number: Confidential

Comment: Hazardous Substance

16. OTHER INFORMATION**MSDS No:** 2432**Reason Issued:** updated**Prepared By:** MATTHEW AUSTIN**Approved By:** Matthew Austin**Title:** EH&S CHEMIST**Other Information:** L/M Codes: J/Si/CA1 (J12120031) (J18)

Material Code: FPC2355

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